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ABSTRACT

This bibliography, compiled from American and Canadian periodical and book indexes, covers a period of approximately five years. Entries deal with the variety of computer applications in instruction; administrative uses and library automation are not included. The 204 entries are separated into six categories: (1) Bibliography--8 entries; (2) General--60 entries; (3) Guidance and Counseling--27 entries; (4) Simulation and Games--19 entries; (5) Testing, Evaluation, and Instructional Management--21 entries; (6) Tutorial, Drill and Practice, Problem-Solving--69 entries. Sources include "Canadian Education Index" (CCRE), "Education Index," "Current Index to Journals in Education," "Research in Education" (ERIC), "Cumulative Book Index," "Psychological Abstracts," "Education Studies Completed in Canadian Universities" (CEA), and "Research Studies in Education" (Phi Delta Kappan). (JS)

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BIBLIOGRAPHIES IN EDUCATION

No. 4

COMPUTER USES IN INSTRUCTIONAL PROGRAMS

November 1969

**CANADIAN TEACHERS' FEDERATION
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**U.S. DEPARTMENT OF HEALTH, EDUCATION & WELFARE
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COMPUTER USES IN INSTRUCTIONAL PROGRAMS

During this decade much effort has gone into experimenting with ways in which computers may be used to facilitate various aspects of instructional programs. This bibliography attempts to illustrate the variety of computer applications in instruction which are being developed. Administrative uses are not considered, nor is library automation.

Sources consulted in preparing the bibliography include the Canadian Education Index (CCRE), the Education Index, the Current Index to Journals in Education, Research in Education (ERIC), Cumulative Book Index, Psychological Abstracts, Education Studies Completed in Canadian Universities (CEA), and Research Studies in Education (Phi Delta Kappan). The period covered is approximately five years.

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BIBLIOGRAPHY

- * 1. Barnes, O.D. A Computer Assisted Instruction: Annotated Bibliography. Bloomington, Indiana: Phi Delta Kappan, 1968. 21 p. ED 029 512. Not available ERIC.
2. Bibliography of Materials Published about the Edison Responsive Environment Learning System: The "Talking Typewriter." New York: Responsive Environment Corporation, 1968. 8 p. Available ERIC. ED 028 648.
3. Glaser, Robert and Mary Louise Marino. A Basic Reference Shelf on Programed Instruction. A Series One Paper from ERIC at Stanford. Stanford: California Institute for Communications Research, Stanford University, 1968. 9 p. Available ERIC. ED 019 013.
4. Hickey, Albert E. and John M. Newton. Computer-Assisted Instruction, A Survey of the Literature. 2d ed. Newburyport, Mass.: Entelek Inc., January 1967. ED 016 414. Available Clearinghouse for Federal Scientific and Technical Inf. AD 649 335.
5. Lekan, Helen A., ed. Index to Computer Assisted Instruction. Milwaukee: Instructional Media Lab., University of Wisconsin, 1969. 518 p. ED 028 650. Not available ERIC.
6. Morrill, Charles S. and others. Programmed Instruction -- a Selected Bibliography. Bedford, Mass.: Mitre Corporation, June 1962. ED 016 418. Available Clearinghouse for Federal Scientific and Technical Information. AD 289 817.
7. Twelker, Paul A. and Carl J. Wallen. Instructional Uses of Simulation -- A Selected Bibliography. Portland, Oregon: Northwest Regional Educational Lab., 1967. 242 p. Available ERIC. ED 019 755.
8. Zinn, Karl L. A Basic Reference Shelf on Interactive Use of Computers for Instruction. A Series One Paper from ERIC at Stanford. Stanford: ERIC Clearinghouse on Educational Media and Technology. Stanford University, 1968. 21 p. Available ERIC. ED 025 155.

GENERAL

9. Anderson, G.E. Computer-assisted instruction: state of the art. Nations Schools 82:49-51.0 '68.
- *10. Bell, Norman T. and Robert D. Moon. Teacher Controlled Computer Assisted Instruction. (Michigan State University). Paper presented to AERA Annual Meeting, Los Angeles, February 1969.

11. Bell, Ralph R. Use of Computers in Junior College Instructional Systems. 1968, 27p. Available ERIC. ED 019 055.
12. Bitzer, Donald L. Some aspects of design and economics for a computer-based educational system. J Ed Data Processing 6:9-27 Winter '68-'69.
- *13. Brahan, J.W. and W.C. Brown. Development of a Computer-Aid Teaching System. (National Research Council). Paper presented to CCRE Symposium on Education and the New Technology, Ottawa: N '67.
- *14. Bundy, Robert F. Computer-assisted instruction -- where are we? Phi Delta Kappan 49:424-429, Ap '68.
- *15. Bushnell, Don D. and Dwight W. Allen, eds. The Computer in American Education. New York: John Wiley and Sons, 1967. 323 p. ED 021 476. Not available ERIC.
- *16. Canadian Council for Research in Education. Education and the New Technology. Ottawa: the Council, 1967. 177 p. Available from ERIC. ED 025 145.
- *17. CAI for the college classroom? Can Univ 3:34-5 Je '68.
- *18. CAI growth tied to costs. Sch Prog 38:41 Je '69.
19. Charp, Sylvia, and Roger E. Wye. Computer-assisted instruction in a large school system. J Ed Data Processing 6:28-39 Winter '68-'69.
20. Chorvinsky, Milton. A Discussion of Educational Technology with Emphasis on Computer-Assisted Instruction. National Center for Educational Statistics, May 1967. 16 p. Available ERIC. Ed 014 890.
- *21. Compassion and the computer: strong words from John Goodlad. Ed Courier 38:40-6 Ja-F '68.
22. Computer-Assisted Instruction Guide. Newburyport, Mass.: Entelek Inc., 1968. ED 022 687. Not available ERIC.
- *23. Computer-assisted instruction is here. Ed Courier 38:17-19 S '67.
24. Cost Study of Educational Media Systems and Their Equipment Components: Volume III, A Supplementary Report: Computer Assisted Instruction. Final Report. Washington: General Learning Corp., 1968. 114 p. Available ERIC. ED 024 281.
25. Coulson, John E., ed. Programmed Learning and Computer-Based Instruction, Proceedings of the Conference on Application of Digital Computers to Automated Instruction. (Washington, October 1961). Santa Monica, California: System Development Corporation, 1962. 291 p. Available John Wiley and Sons, N.Y. ED 028 636.

- *26. Curl, David H. Applications of computer-assisted instruction. Av Instr 13:607-609 June-July '68.
- 27. Fall, Charles R. Individualizing University Instruction, Exploring Computer Potential to Aid College Teachers by Directing the Learning Process. Inter-University Project One, Publications Series. Buffalo: State University of New York at Buffalo. Available ERIC. ED 016 412.
- 28. Farrell, Edmund J. English, Education, and the Electronic Revolution. Champaign, Ill.: National Council of Teachers of English, '67. 85 p. ED 017 498. Not available ERIC.
- 29. Feldhusen, J. and M. Szabo. Advent of the educational heart transplant, computer-assisted instruction: a brief review of research. Contemp Ed 40:265-74 Ap '69.
- 30. _____. A review of developments in computer assisted instruction. Ed Technology 9:32-40 Ap '69.
- *31. Gentile, J.R. The first generation of computer-assisted instructional systems: an evaluative review. AV Comm Rev 15:23-53 Spring '67.
- 32. Gerard, R.W. and J.G. Miller, eds. Computers and Education. New York: McGraw 1967, 307 p.
- 33. Glaser, Robert and others. The Interface Between Student and Subject Matter. Pittsburgh: Learning Research and Development Center, University of Pittsburgh, '66. 140 p. Available ERIC. ED 013 983.
- 34. Glaser, Robert and William W. Ramage. The Student-Machine Interface in Instruction. Pittsburgh: Learning Research and Development Centre, University of Pittsburgh, '67. 10 p. Available ERIC. ED 015 843.
- *35. Harnack, Robert S. Teacher decision making and computer-based resource units. AV Instr 12:32-35 Ja '67.
- 36. Hunka, S. The challenges of computer assisted instruction in Systems for the 70's. Papers delivered at Canadian Conference on Business Education, Banff, Alberta, March 26-29, 1967. 150 p. Published Toronto: Sir I. Pitman (Canada), 1967.
- 37. Impelliteri, Joseph T. The Computer as an Aid to Instruction and Guidance in the School. Ithaca, N.Y.: State University of New York. N '67. 22 p. Available ERIC. ED 020 529.
- 38. Kaupe, Arthur F. Jr. Operating Software for a Computer-Based Instruction System. Pittsburgh: Learning Resources and Development Centre, University of Pittsburgh, March '66. Available ERIC. ED 016 398.

39. Kopstein, Felix F. and Robert J. Seidel. Computer Administered Instruction Versus Traditionally Administered Instruction, Economics. Alexandria, Va.: George Washington University. ED 014 644. Available Clearinghouse for Federal Scientific and Technical Information, Springfield, Va. 22151. *Published in condensed form, AV Comm R 16:147-175, Summer '68.
40. Lockard, J. David. Computers in Undergraduate Education: Mathematics, Physics, Statistics and Chemistry. College Park, Maryland: Science Teaching Centre, University of Maryland, '67. 82 p. Available from ERIC. ED 025 440.
41. Loehwing, David A. The Challenge of Technology: A Symposium on Educational Technology. An IDEA occasional paper. Dayton, Ohio: Charles F. Kettering Foundation. 15 p. Available ERIC. ED 021 480.
42. Lopez, Guillermo. CAI; a new dimension to the teaching-learning act. J Ed Date Processing 6:40-52 Winter '68-'69.
- *43. Loughary, John W. Man-Machine Systems in Education. New York: Harper and Row, '66. 242 p. ED 014 888. Not available ERIC.
44. Margolin, Joseph B. and Marion R. Misch. Education in the Seventies, A Study of Problems and Issues Associated with the Effects of Computer Technology on Education. Washington: George Washington University, '67. 330 p. ED 022 361. Not available ERIC.
- *45. McLean, Leslie D. Student-teacher-computer team in education, pp. 22-24 in CCRE, Fifth Canadian Conference on Educational Research, Winnipeg: June '67.
46. Mitzel, Harold E. and others. Experimentation with Computer-Assisted Instruction in Technical Education. Semi-Annual Progress Report. Report No. R-6. University Park: Computer Assisted Instruction Lab., Pennsylvania State University, '67. 68 p. Available ERIC. ED 028 245.
47. _____. Experimentation with Computer-Assisted Instruction in Technical Education. Semi-Annual Progress Report, Report No. R-9. University Park: Computer Assisted Instruction Lab., Pennsylvania State University, '67. 82 p. Available ERIC. ED 029 082.
48. Nachtigal, Paul. A Computerized Approach to the Individualizing of Instructional Experiences. Boulder Valley Public Schools, Colorado. 22 p. Available ERIC. ED 014 226.
49. Norfleet, M. and L. Burkett. CAI in eastern Kentucky. Contemp Ed 40:290-2 Ap '69.

- *50. Oettinger, Anthony and Sema Marks. Educational technology: new myths and old realities. Harvard Ed R 38:697-717, with discussion pp. 718-755, Fall '68. (Article adapted from forthcoming book, Run, Computer, Run.)
- 51. Pincus, Margaret E., ed. Some Essays on Computers in Education. Cambridge, Mass.: Graduate School of Education, Harvard University and New England School Development Council, 1967. 118 p. ED 026 859. Not available ERIC.
- *52. Ragsdale, Ronald G. Computer-assisted instruction. Sch Admin 4:53-56 Ap '67.
- 53. _____. The Learning Research and Development Center's Computer Assisted Laboratory. Pittsburgh: Learning Research and Development Center, University of Pittsburgh, F '66, 6 p. Available ERIC. ED 014 901.
- *54. Roberts, A.G. CAI, the most sophisticated teaching tool takes a tip from Socrates for a method. Sch Prog 35:50-3+ S '66.
- 55. Rodgers, William A. and Lawrence M. Gariglio. Toward a Computed Based Instructional System. Saginaw Township Community Schools, Michigan. Available ERIC. ED 016 405.
- 56. Rosenberg, R.C. and others. Investigations in Computer-Aided Instruction and Computer-Aided Controls. Final Report. Cambridge: Department of Mechanical Engineering, Massachusetts Institute of Technology, 1967. 26 p. ED 022 383. Available Clearinghouse for Federal Scientific and Technical Information, Springfield, Va. 22151.
- 57. Ryans, David G. and others. A Computer-Based Laboratory for Automation in School Systems. Santa Monica, Calif.: System Development Corporation, 1962. 20 p. Available ERIC. ED 020 684.
- 58. Scamman, J.P. Computer-assisted instruction: process and procedure. Contemp Ed 40:298-301 Ap '69.
- 59. Seidel, Robert J. Is CAI cost/effective? The right question at the wrong time. Ed Technology 9:21-3 My '69.
- 60. Smallwood, Richard D. A Decision Structure for Teaching Machines. Cambridge: Research Laboratory of Electronics, Massachusetts Institute of Technology, 1962. 128 p. ED 024 262. Available M.I.T. Press.
- 61. _____. Optimum Policy Regions for Computer-Directed Teaching Systems. 1968. 33 p. Available ERIC. ED 027 754.

62. Squires, Burton E. Jr. Small colleges can use computers in a big way. Coll and Univ Business, 44, My '68. ED 022 348. Not available ERIC.
- *63. Stolurow, Lawrence M. Computer Assisted Instruction. Education Automation Monograph Series, No. 1. Grosse Pointe, Mich.: American Data Processing, Inc., 1968. 94 p. ED 028 649. Not available ERIC.
- *64. Suppes, Patrick. Computer technology and the future. Phi Delta Kappan 49:420-423 Ap '68.
65. Suppes, P. and others. Computer-Assisted Instruction. New York: Academic Press, 1968. 385 p.
66. Wallis, D. and others. Programmed Instruction in the British Armed Forces. A Report on Research and Development. London: Her Majesty's Stationery Office, 1967. ED 014 030. Not available ERIC.
- *67. Widdop, James H. The computer as a teaching aid. McGill J Ed 2:66-73 Spring '67.
68. Zinn, Karl L. Computer technology for teaching and research on instruction. R Ed Res 37:618-634 D'67.

GUIDANCE AND COUNSELLING

69. Cogswell, J.F. and others. The Design of a Man-Machine Counseling System. A Professional Paper. Santa Monica, Calif.: System Development Corp. Paper presented as American Psychological Association, New York, September 1966. 19 p. Available ERIC. ED 014 781.
70. _____. Exploratory Study of Information-Processing Procedures and Computer-Based Technology in Vocational Counseling. Final Report. Santa Monica, Calif.: System Development Corporation, 1967. 253 p. Available ERIC. ED 017 710
- *71. Cooley, William W. A computer-measurement system for guidance. Harvard Ed R 34:559-572 Fall '64.
- *72. Cooley, William W. and Raymond C. Hummel. Systems approaches in guidance. R Ed Res 39:251-262 Ap '69.
73. Ellis, Allan B. and others. A Rudimentary Demonstration for the Information System for Vocational Decisions-Oriented, Guidance Scripts, Test of Occupational Knowledge and a Script Writing Language. Cambridge, Mass.: Harvard University, 1967. 115 p. Available ERIC. ED 014 110.

74. Friesen, Deloss D. The Validation of an Automated Counseling System. Santa Monica, Calif.: System Development Corporation, A '65. Available ERIC. ED 016 262.
75. Harris, Joan. Summary of a Project for Computerized Vocational Information Being Developed at Willowbrook High School, Villa Park, Illinois. Available ERIC. ED 019 840.
76. Hutchinson, Thomas E. Level of Aspiration and Models Applicable to the Problem of Choice of Career. Cambridge, Mass.: Harvard University Report No. Harvard-Needs-Newton-TM-3. 37 p. Available ERIC. ED 015 494.
77. Impellitteri, Joseph T. A computer-assisted career exploration system. Nat Bus Ed Q 37:47-51 D '68.
78. _____. The Development and Evaluation of a Pilot Computer-Assisted Occupational Guidance Program. Final Report and Appendices A-E. University Park: Vocational Education Department, Pennsylvania State University, 1968. 555 p. Available ERIC. ED 029 095.
79. _____. Exploration with a computer assisted occupation information system. Ed Technology 9:37-38 Mr '69.
80. _____. Exploration with a Computer-Assisted Occupational Guidance Program. Paper presented to American Educational Research Association. F '69. 23 p. Available ERIC. ED 027 584.
81. Irwin, Tom J. The Use in Counseling and Research of a Computer Program Which Gives an Item Analysis of the Edwards Personal Preference Schedule. Paper presented to American Personnel and Guidance Association Convention, Detroit, Ap '68. Available ERIC. ED 022 209.
- *82. Kleinmutz, Benjamin, and Robert S. McLean. Diagnostic interviewing by digital computer. Behavioral Science 13:75-80 Ja '68.
83. Loughary, John W., Deloss Friesen and Robert Hurst. Autocoun: A computer-based automated counseling simulation system. Personnel and Guide J, 1966, 45(1), 6-15.
84. Loughary, John W., and Murray Tondow. Computers as Substitute Counselors: Some Possibilities. Paper presented to American Psychological Association, San Francisco, A '68. Available ERIC. ED 022 228.
85. Loughary, John W. The Information Explosion and Its Implications for the Counseling Function, or Will Counseling Be Eliminated in the Cybernation Revolution. Paper presented to CEEB Invitational Conference on Preparation of School Counselors, Chicago, F '66. 19 p. Available ERIC. ED 015 487.

86. Minor, Frank J. and others. An experimental computer-based educational and career exploration system. Personnal & Guid J 7:564-569 F '69.
87. A Report on Project CVIS (Computerized Vocational Information System). Villa Park, Ill.: Willowbrook High School, '69. 75 p. Available ERIC. ED 029 331.
88. Roberts, Tommy L. and Franz J. Frederick. Computer Assisted Counseling. Progress Report No. 1. Stillwater, Oklahoma: Research Foundation, Oklahoma State University, '67. 23 p. Available ERIC. ED 017 016.
89. Roberts, Tommy L. Problems Associated with Simulating a Counselor's Function in the Student Decision-Making Process. The Bartlesville System. Stillwater: Research Foundation, Oklahoma State University, 1969. 14 p. Available ERIC. ED 029 326.
90. Roberts, Tommy L. and others. Theoretical Framework. The Bartlesville System. Stillwater: Research Foundation, Oklahoma State University, 1969. 52 p. Available ERIC. ED 029 339.
91. Roberts, Tommy L. The Uniqueness of the Individual. Paper presented to AERA Annual Meeting, Chicago, F '68. Available ERIC. ED 016 273.
- *92. Smith, T.W. Development of a research-based and computer-assisted guidance system. Ed Lead 25:754-60 My '68.
93. Tondow, Murray. Computer utilization by schools: an example. Int R Ed 14:182-210, '68. Not available ERIC. ED 027 749.
94. Veldman, Donald J. Computer-based sentence-completion interviews. J Counsel Psychol 14, Mr '67. Not available ERIC. ED 017 007.
95. Weiss, David J. Computer-Assisted Synthesis of Psychometric Data in Vocational Counseling. Paper presented at American Psychological Association, San Francisco, August 1968. 12 p. Available ERIC. ED 025 787.

SIMULATION AND GAMES

96. Abrahamson, Stephen and Judsons Denson. A Developmental Study of Medical Training Simulators for Anesthesiologists. Final Report. Los Angeles: University of Southern California, 1968. 216 p. Available ERIC. ED 019 253.
- *97. Beck, Isabel and Bruce Monroe. Some Dimensions of Simulation. (Southwest Regional Laboratory and Insgroup Inc.). Paper presented to AERA Annual Meeting, Los Angeles, F '69.

- * 98. Collet, Lee. Program SIMEX: A Simulated Experiment for Teaching and Testing Research Competencies. (University of Michigan). Paper presented to AERA Annual Meeting, Los Angeles, F '69.
- 99. Hodgson, James B. Jr. ICAF-Temper 66, Student Acceptance of a Computer Simulation of International Relations as an Adjunct to the Curriculum of the Industrial College of the Armed Forces. 1966. 30 p. ED 018 682. Available Clearinghouse for Federal Scientific and Technical Information, Springfield, Va. 22151.
- 100. Hunt, Earl B. and others. Possible Applications of Computer Oriented Problem Solving Methods to Mathematics Education. Inglewood, Calif.: Southwest Regional Educational Laboratory, 1968. 131 p. ED 029 785. Available on loan, ERIC Center for Science Education.
- 101. Ingraham, L.W. Teachers, computers and games: innovations in the social studies. Social Ed 31:51-3 Ja '67.
- *102. McKay, William. Computer-directed instructional games. AV Instr 14: 37-40 Ap '69.
- 103. McKenney, James L. Simulation Gaming for Management Development. Boston: Division of Research, Harvard Business School, 1967. 189 p. ED 017 816. Not available ERIC.
- 104. Naddor, Eliezer. Inventory Systems Laboratory. Final Report. Baltimore: Johns Hopkins University, 1968. 136 p. Available ERIC. ED 026 849.
- 105. O'Connor, W.F. What it's like when children play a computer game. Instr 77:73 D '67.
- 106. Rozran, Gilbert B. A Study of the Effectiveness of a Military-Type Computer-Based Instructional System When Used in Civilian High School Courses in Electronics and Automechanics. Final Report. King of Prussia, Pa.: Systems Operation Support Inc., 1968. 87 p. Available ERIC. ED 023 887.
- *107. Simulated environments for individualized instruction. AV Instr 9: 410-411 S '64.
- 108. Thomas, M.E. and G. McKinney. Computer simulations in an introductory course in industrial engineering. J Eng Ed 59:401-404 Ja '69.
- 109. Thompson, Fred A. Gaming Via Computer Simulation Techniques for Junior College Economics Education. Final Report. Riverside City College, California, 1968. 73 p. Available ERIC. ED 021 549.
- 110. Tucker, R.K. Computer simulations and simulation games: their place in the speech curriculum. Speech Teach 17:128-33 Mr '68.

111. Wilkins, C.L. and C.E. Klopfenstein. Simulation of NMR spectra: computers as teaching devices. J Chem Ed 43:10-13 Ja '66.
- *112. Wing, R.L. Computer-controlled economics games for the elementary school. AV Instr 9:681-2 D '64.
113. Wing, Richard L. and others. The Production and Evaluation of Three Computer-Based Economics Games for the Sixth Grade. Final Report. Westchester County Board of Coop. Ed. Services. Je '67. 191 p. Available ERIC. ED 014 227.
114. Wing, R.L. Simulation as a method of instruction in science education. Sci Teach 35:41-2 My '68.

TESTING, EVALUATION, AND INSTRUCTIONAL MANAGEMENT

115. Berkell, Arthur. Computerized Classroom. New York: Reinhold Publishing Corp., 1968. ED 023 275. Not available ERIC.
116. Bolvin, John O. Individually Prescribed Instruction -- Reading Program. Paper presented at College Reading Association Conference, Knoxville, Tennessee, April 1968. Available ERIC. ED 026 202.
117. Broyles, David. Computer Techniques for Weekly Multiple-Choice Testing. Riverside City College, California, 1966. 7 p. Available ERIC. ED 014 288.
118. Cooley, William W., and Robert Glaser. An Information and Management System for Individually Prescribed Instruction. Working Paper 44. Learning Research and Development Center, University of Pittsburgh, 1968. 35 p. Available ERIC. ED 026 862.
119. Coulson, John E. An Instructional Management System for the Public Schools. Santa Monica, California: System Development Corporation, 1967. ED 019 885. Available Clearinghouse for Federal Scientific and Technical Information, Springfield, Va. 22151.
120. Daigen, A. Computer grading of English composition. Engl J 55:46-52 Ja '66.
121. Easley, J.A. Jr. A Project to Develop and Evaluate a Computerized System for Instructional Response Analysis; Project SIRA. Final Report. Urbana: Computer-Based Education Laboratory, University of Illinois, 1968. 49 p. Available ERIC. ED 027 751.
- *122. Geddes, Cleone L. and Beverly Y. Kooi. An instructional management system for classroom teachers. Elem Sch J 69:337-345 Ap '69.

- *123. Hart, John O. Diagnostic testing. Argus 26:118, S-O '67.
- *124. Hiller, Jack H. and others. Opinionation, vagueness, and specificity-distinctions: essay traits measured by computer. Am Ed Res J 6:271-286 Mr '69.
- 125. Hinckley, C.C. Versatile computer-graded examination. J Chem Ed 43:575-8 N '66.
- 126. Macnab, R.B.J. and P.R. Conger. Assigning students by computer to required physical education programs. CAHPER J 35:33-5 O-N '68.
- *127. Miller, C.D. and others. Scoring, analyzing and reporting classroom tests using an optical reader and 1401 computer. Ed & Psychol M 27:159-64 Spring '67.
- *128. O'Malley, J. Michael and Curt Stafford. Scoring and analyzing teacher made tests with an IBM 1620. Ed & Psychol M 26:715-717 Autumn '66.
- 129. Page, Ellis B., and Dieter H. Paulus. The Analysis of Essays by Computer. Final Report. Storrs: University of Connecticut, 1968. 280 p. Available ERIC. ED 028 633.
- *130. Page, E.B. Imminence of grading essays by computer, Phi Delta Kappan 47:238-43 Ja '66.
- 131. Plattor, Emma E., and Ellsworth S. Woestehoff. The Application of Computer Technology to Education Diagnosis. Paper presented at International Reading Association Conference, Boston, April 1968, 16 p. Available ERIC. ED 028 025.
- *132. Richardson, Robert J. An information system for individualized instruction in an elementary school. Ed & Psychol M 29:199-20 Spring '69.
- 133. Shuford, Emir H. Jr. Cybernetic Testing. USAF ESD Technical Report, 1967, No. 67-229, iv, 26 p.
- 134. Williams, Gilbert. The Use of the Computer for Testing, Programming and Instruction. Paper presented at National Reading Conference, St. Petersburg, Florida, December 1966. 11 p. Available ERIC. ED 015 098.
- 135. Wolf, Richard M. A Computer Program for Formative Evaluation. Inglewood, Calif.: Southwest Regional Educational Laboratory. 1968. 9 p. Available ERIC. ED 023 177.

TUTORIAL, DRILL AND PRACTICE, AND PROBLEM-SOLVING

136. Adams, E.N. and others. Conversation with a computer as a technique of language instruction. Mod Lang J 52:3-16 Ja '68. ED 016 978. Not available ERIC.
137. Atkinson, Richard C. and Patrick Suppes. An Automated Primary-Grade Reading and Arithmetic Curriculum for Culturally-Deprived Children. Final Report. Stanford: Stanford University, 1968. 211 p. Available ERIC. ED 023 773.
138. Atkinson, Richard C. and Hansen, Duncan N. Computer-assisted instruction in initial reading: the Stanford Project. Read Res Q 1966, 2(1), 5-26.
139. Atkinson, Richard C. Computerized instruction and the learning process. Am Psych 23:225-239 '68.
140. Atkinson, Richard C., and Patrick Suppes. Program in Computer-Assisted Instruction. Final Report. Stanford University, California, 1968. 95 p. Available ERIC. ED 026 873.
141. _____. Project for an Automated Primary-Grade Reading and Arithmetic Curriculum for Culturally-Deprived Children. Progress Report Number 5, July 1 to December 31, 1966. Stanford, California: Institute for Mathematical Studies in Social Science, Stanford University, January 1967. 20 p. Available ERIC. ED 014 506.
- *142. Atkinson, R.C. Reading instruction under computer control. Am Sch Bd J 155:16-17 S '67.
143. _____. A reply to Professor Spache's article, "A Reaction to computer-assisted instruction in initial reading: the Stanford Project." Read Res Q 1968, 3(3), 418-420.
144. Axeen, Marina Esther. Teaching Library Use to Undergraduates -- Comparison of Computer Based Instruction and the Conventional Lecture. Final Report. Urbana: University of Illinois, A '67. 113 p. Available ERIC. ED 014 316.
145. Bender, Martin L. A Voluntary Prekindergarten Language Development and Reading Program for the Entire Four-Year-Old Population of a City. Final Report. Mount Vernon Public Schools, N.Y.: F '68. 77 p. Available ERIC. ED 020 855.
146. Berkeley, Edmund C. Computer-Assisted Explanation: A Guide to Explaining: and Some Ways of Using a Computer to Assist in Clear Explanation. Cambridge, Mass.: Information International Inc., 1967. 280 p. ED 022 382. Available Clearinghouse for Federal Scientific and Technical Information, Springfield, Va. 22151.

147. Brown, B.R. and D.A. Gilman. Expressed student attitudes under several conditions of automated programmed instruction. Contemp Ed 40:286-9 Ap '69.
148. Chesin, G.A. Teaching spelling by computer. Minn J Ed 47:14-15 Ap '67.
149. Computer Assisted Mathematics Instruction, Pilot Project. Hartford, Conn.: Connecticut State Department of Education, 1966. 35 p. Available ERIC. ED 018 364.
150. Computers will drill 6000 N.Y. students. Nations Sch 80:69 O '67.
151. Dorn, William S. and Judith B. Edwards. Finding the best solutions via computer. J Ed Data Processing 6:90-107, Spring '69.
152. An Evaluation of Three Instructional Media as Supplements to a Graduate Course in Educational Statistics. Buffalo: Instructional Communication Center, 1968. 20 p. Available ERIC. ED 027 732.
153. Fejfar, J.L. ISU lab school fourth graders learn through CAI. Contemp Ed 40:296-7 Ap '69.
154. Fielding, G.J. Computer-assisted instruction in geography. J Geog 67:474-83 N '68.
- *155. Fishman, E.J. and others. Massed versus distributed practice in computerized spelling drills. J Ed Psychol 59:290-6 A '68.
156. Gilman, David A. A Comparison of the Effectiveness of Feedback Modes for Teaching Science Concepts by Means of a Computer-Assisted Adjunct Auto-Instructional Program. Pennsylvania State University, University Park, 1967. 170 p. ED 024 591. Available University Microfilms.
157. _____. A Comparison of Several Feedback Methods for Correcting Errors by Computer-Assisted Instruction. Paper presented at American Psychological Association Meeting, San Francisco, August 1968. 19 p. Available ERIC. ED 024 287.
158. Green, Donald Ross, and others. Learning to Recognize Words and Letters on a CAI Terminal. Paper presented to International Reading Association Conference, Boston, April 1968. Available ERIC. ED 027 177.
159. Hankin, Edward K. and others. The Development of Pre-Vocational Education Literacy Courses for Use with Computer Assisted Instruction of Disadvantaged Youth. Tallahassee: Florida State University, September 1966. 5 p. Available ERIC. ED 015 230.

160. Hansen, Duncan N. Applications of Computers to Research on Instruction. Paper presented to National Society of College Teachers of Education, February 1966. 24 p. Available ERIC. ED 018 205.
161. Israel, Benjamin L. Response Environment Program: Brooklyn, N.Y.; Report of the First Full Year of Operation, The Talking Typewriter. Brooklyn: Responsive Environment Program Center, New York City Board of Education 1968. 213 p. Available ERIC. ED 027 742.
- *162. Johnson, Kenneth D. Do you think a computer could help you in class? Ed Courier 36:69,71 My '66.
163. Johnson, Roger L. The Use of Programmed Learning and Computer-Based Instruction Techniques to Teach Electrical Engineering Network Analysis. Urbana: Coordinated Science Laboratory, University of Illinois 1966. 85 p. ED 021 459. Available Clearinghouse for Federal Scientific and Technical Information, Springfield, Va. 22151.
- *164. Kerr, Eugene G. and Harold F. Rahmlow. Computer-assisted math instruction in small schools. Av Instr 14:24-26 F '69.
165. Kindred, J. Computer Augmented Learning: a Survey. Santa Barbara, California: General Electric Company 1966. 29 p. ED 021 455. Available Clearinghouse for Federal Scientific and Technical Information, Springfield, Va. 22151.
166. Knutson, Jack M. Spelling drills using a computer-assisted instructional system. (Stanford University). Dissertation Abstracts 1968 28(11-A) 4483-4484.
- *167. Kotak, C.B. and W.P. Goddard. Computers in the classroom. B.C. Teach 46:65-67 N'66.
168. Kuhn, Wolfgang E. and Raynold L. Allvin. Computer-assisted teaching: a new approach to research in music. J Res Mus Ed 1967 15(4) 305-315.
- *169. LaFrenz, Dale E. and Thomas E. Kieren. Computers for all students: a new philosophy for computer use. Sch Sci & Math 49:34-41 Ja '69.
170. Lerner, Seymour. The Computer as an Aid in Teaching Mathematics, an Instructional Bulletin, Grades 7-10. Report No. ESEA-5. Los Angeles City Schools, California, 1967. 107 p. Available ERIC. ED 020 660.
171. Lopez, G. Algebra and physics taught by teletype. CTA J 64:10-12 Mr '68.
172. Mitzel, Harold E. The Development and Presentation of Four College Courses by Computer Teleprocessing. Final Report. Pennsylvania State University, University Park. June 30, 1967. Available ERIC. ED 016 377.

173. Morrison, H.W. and E.N. Adams. Pilot study of a CAI laboratory in German. Mod Lang J 52:279-87 My '68.
174. National Council of Teachers of Mathematics. Computer Facilities for Mathematics Instruction. Washington: the Council (NEA). 51 p. ED 019 855. Not available ERIC.
175. Newman, J.R. and M.S. Rogers. Experiments in Computer-Aided Inductive Reasoning. Santa Monica, California: System Development Corporation 1966. 78 p. ED 022 384. Available from Clearinghouse for Federal Scientific and Technical Information, Springfield, Va. 22151.
176. Patterson, Marian J. An observation of computer assisted instruction on underachieving, culturally deprived students. J Sec Ed 44:187-188 Ap '69.
177. Progress Report; Stanford Program in Computer-Assisted Instruction for the Period January 1, 1968 to March 31, 1968. Stanford: Institute for Mathematical Studies in Social Science, Stanford University 1968. 84 p. Available ERIC. ED 021 441.
178. Rathe, G.H. Jr. Computer-assisted instruction: promising new tool for teaching deaf students. Volta R: 70:447-52 S '68.
179. Richardson, Jesse O. Teaching Mathematics Through the Use of a Time-Shared Computer. Final Report. Boston: Massachusetts State Department of Education 1968. 224 p. Available ERIC. ED 023 606.
180. Robinson, Willis and Willis Austin. A Computerized Test-Correcting Service for Teachers. Paper presented to a meeting of the California Educational Research Association, Los Angeles, March 1969. 9 p. Available ERIC. ED 027 753.
181. Rosenbaum, Peter S. The computer as a learning environment for foreign language instruction. Foreign Lang Annuals 4:457-465 My '69.
182. Rosenbaum, J., and others. Computer-Based Instruction in Statistical Inference; Final Report. Technical Memorandum Series. Santa Monica, California: System Development Corporation 1967. 201 p. Available ERIC. ED 029 511.
183. Sears, Pauline S. and David H. Feldman. Changes in Young Children's Classroom Behaviour after a Year of Computer-Assisted Instruction: an Exploratory Study. Research Memorandum. Stanford: Stanford Center for Research and Development in Teaching, Stanford University 1968. 26 p. Available ERIC. ED 022 366.
184. Spache, George D. A reaction to computer-assisted instruction in initial reading: The Stanford Project. Read Res Q 1967 3(1), 101-109.

185. Starkweather, John A. Computer Science Instruction in Elementary Grades, An Exploration of Computer-Based Learning Methods. Final Report. San Francisco: University of California, 1968. 199 p. Available ERIC. ED 021 445.
186. Stolurow, Lawrence M. Computer-Based Instruction: Psychological Aspects and Systems Conception of Instruction. Cambridge, Mass.: Graduate School of Education, Harvard University 1967. 30 p. ED 024 267. Available Clearinghouse for Federal Scientific and Technical Information, Springfield, Va. 22151.
187. _____. Project SOCRATES: A Flexible Research Facility to Be Used in Studies of Pre-Programed Self Instruction (PSI) and Self-Programed Individualized Education (SPIE). Final Report. Urbana: Training Research Laboratory, University of Illinois 1966. ED 021 457. Available Clearinghouse of Federal Scientific and Technical Information, Springfield, Va. 22151.
188. _____. Socrates, A Computer-Based Instructional System in Theory and Research. Technical Report. Urbana: Training Research Laboratory, University of Illinois, 1966. ED 021 458. Available Clearinghouse for Federal Scientific and Technical Information, Springfield, Va. 22151.
- *189. Stovall, Gayden F. Long Distance Learning. AV Instr 14: 20-23 F '69.
190. Suppes, Patrick, and Edward Crothers. Application of Mathematical Learning Theory and Linguistics to Second-Language Learning, with Particular Reference to Russian. Final Report. Stanford: Institute for Mathematical Studies in Social Science, Stanford University 1967. 30 p. Available ERIC. ED 018 158.
191. Suppes, Patrick and others. Arithmetic Drills and Review on a Computer-Based Teletype. Stanford: Institute for Mathematical Studies in Social Science, Stanford University, 1965. 17 p. Available ERIC. ED 014 215.
192. Suppes, Patrick, and Max Jerman. Computer Assisted Instruction at Stanford. Ed Technology 9:22-4 Ja '69.
193. Suppes, Patrick. Computer-Assisted Instruction in the Schools: Potentialities, Problems, Prospects. Psychology Series. Technical Report. Stanford: Institute for Mathematical Studies in Social Science, Stanford University, 1965. 18 p. Available ERIC. ED 021 482.
194. Suppes, Patrick and others. Problem Solving on a Computer-Based Teletype. Stanford: Institute for Mathematical Studies in Social Science, Stanford University, 1969. 26 p. Available ERIC. ED 029 795.

195. Suppes, Patrick and Richard Atkinson. Stanford Program in Computer-Assisted Instruction, Progress Report 6, for the Period January 1, 1967 to March 31, 1967. Stanford, California: Institute for Mathematical Studies in Social Science, Stanford University, 1967. 24 p. Available ERIC. ED 016 632.
196. Sutter, Emily M. Individual differences and social conditions as they affect learning by computer-assisted instruction. Dissertation Abstracts, 1968, 28(10-A), 4012.
197. Suydam, Marilyn N. Teachers, pupils and computer-assisted instruction. Arith Teach 16:173-176 Mr '69.
- *198. Trippon, Marianne. Plato at work. Phi Delta Kappan. 49: 439-441 Ap '68.
199. Turner, Ronald C. CARLOS: Computer-Assisted Instruction in Spanish at Dartmouth College. Hanover, N.H.: Dartmouth College, 1968. 38 p. Available ERIC. ED 025 972.
- *200. Umans, Shelley. Youngsters sharpen skills by computer. AV Instr 14:48 F '69.
201. Van Campen, Joseph A. Project for Application of Mathematical Learning Theory to Second-Language Acquisition, with Particular Reference to Russian. Final Report. Stanford: Community College Planning Center, Stanford University, 1968. 196 p. Available ERIC. ED 026 934.
202. Wilson, H.A. and R.C. Atkinson. Computer-Based Instruction in Initial Reading -- a Progress Report on the Stanford Project. Stanford, California: Institute for Mathematical Studies in Social Science, Stanford University, August 1967. 110 p. Available ERIC. ED 015 847.
203. Wodtke, Kenneth H. and others. Scrambled versus Ordered Sequencing in Computer-Assisted Instruction. Pennsylvania State University, University Park, July 1967. Available ERIC. ED 015 678.
- *204. Zazzaro, Joanne. It's fingertip learning in California. Am Sch Bd J 156:12-13+ A '68.